

I CLAIM:

1. A hook and loop fastener comprising a hook component and a loop component;

the hook component including a hook backing and a plurality of hooks protruding from it;

the loop component including a thermally retracted material with a plurality of looped fibers on a first side of the material and a thermally retracted fibrous surface on a second side of the material.

2. The hook and loop fastener of Claim 1, wherein a plurality of thermally retracted fibers on the second side of the material are continuous with a plurality of the looped fibers on the first side of the material.

3. The hook and loop fastener of Claim 1, wherein the retracted material comprises a thermally retracted nonwoven web.

4. The hook and loop fastener of Claim 3, wherein the thermally retracted nonwoven web is selected from the group consisting of a bonded carded web, a spunbonded web, and a meltblown web.

5. The hook and loop fastener of Claim 4, wherein the thermally retracted nonwoven web comprises a polymer selected from the group consisting of polyolefins, polyesters, polyamides, and thermoplastic elastomeric polymers.

6. The hook and loop fastener of Claim 5, wherein the polymer comprises a polyolefin selected from the group consisting of one or more of polyethylene, polypropylene, polybutene, ethylene copolymers, propylene copolymers, and butene copolymers.

7. The hook and loop fastener of Claim 1, wherein the loop component comprises an S-weave bond pattern.

8. The hook and loop fastener of Claim 7, wherein the loop component has a bond area of about 10 to 25% effected by the S-weave bond pattern.

9. The hook and loop fastener of Claim 1, wherein the loop component is retracted in a cross direction.

10. An absorbent article comprising the hook and loop fastener of Claim 1.

11. A diaper comprising the hook and loop fastener of Claim 1.

12. A training pant comprising the hook and loop fastener of Claim 1.

13. A feminine hygiene product comprising the hook and loop fastener of Claim 1.

14. An incontinence product comprising the hook and loop fastener of Claim 1.

15. A medical garment comprising the hook and loop fastener of Claim 1.

16. A hook and loop fastener comprising a hook component and a loop component;

the hook component including a hook backing and a plurality of hooks protruding from it;

the loop component including a layer of a first thermally retracted material with a plurality of looped fibers on a first side of the first material, and a layer of a second thermally retracted material with a plurality of thermally stabilized

fibers on a second side of the second material, wherein the first thermally retracted material and the second thermally retracted material are bonded to one another.

17. The hook and loop fastener of Claim 16, wherein the first retracted material and the second retracted material comprise different deniers from one another.

18. The hook and loop fastener of Claim 16, wherein the first retracted material and the second retracted material comprise different basis weights from one another.

19. The hook and loop fastener of Claim 16, wherein the first retracted material and the second retracted material comprise different resins from one another.

20. The hook and loop fastener of Claim 16, wherein the first retracted material and the second retracted material each comprise a thermally retracted nonwoven web.

21. The hook and loop fastener of Claim 20, wherein the thermally retracted nonwoven web of both the first retracted material and the second retracted

material is selected from the group consisting of a bonded carded web, a spunbonded web, and a meltblown web, .

22. The hook and loop fastener of Claim 21, wherein each of the thermally retracted nonwoven webs comprises a polymer selected from the group consisting of polyolefins, polyesters, polyamides, and elastomeric thermoplastic polymers.

23. The hook and loop fastener of Claim 22, wherein the polymer of each material comprises a polyolefin selected from the group consisting of one or more of polyethylene, polypropylene, polybutene, ethylene copolymers, propylene copolymers, and butene copolymers.

24. A method of making a loop component of a hook and loop fastener, comprising the steps of:

applying heat to a second side of a fibrous, retractable web;
thermally retracting the second side of the fibrous, retractable web;
thermally stabilizing individual fibers of the fibrous, retractable web on the second side of the fibrous, retractable web; and
allowing a first side of the retractable web to gather into loops.

25. The method of Claim 24, wherein the temperature of the heat is within $\pm 5^{\circ}\text{C}$ of a melting point of the fibrous, retractable web.

26. The method of Claim 24, wherein the heat is applied using a hot air knife.

27. The method of Claim 26, wherein the fibrous, retractable web passes beneath the hot air knife at a line speed in a range of about 100 to about 3,000 feet per minute.

28. The method of Claim 26, wherein the fibrous, retractable web passes beneath the hot air knife at a line speed in a range of about 500 to about 2,500 feet per minute.

29. The method of Claim 26, wherein the fibrous, retractable web passes beneath the hot air knife at a line speed in a range of about 1,000 to about 2,000 feet per minute.

30. The method of Claim 26, wherein air velocity from the hot air knife is in a range of about 1,000 to about 25,000 feet per minute.

31. The method of Claim 26, wherein air velocity from the hot air knife is in a range of about 5,000 to about 20,000 feet per minute.

32. The method of Claim 26, wherein air velocity from the hot air knife is in a range of about 8,000 to about 15,000 feet per minute.

33. The method of Claim 24, further comprising the step of holding the fibrous, retractable web on a forming wire with a vacuum while applying heat to the second side of the fibrous, retractable web.

34. The method of Claim 33, further comprising the steps of controlling the vacuum and allowing the fibrous, retractable web to move in a direction of retraction.

35. The method of Claim 24, wherein the second side of the fibrous, retractable material retracts in a cross direction.

36. The method of Claim 24, wherein the fibrous, retractable material is a nonwoven web.

37. The method of Claim 36, wherein the nonwoven web is selected from the group consisting of a bonded carded web, a spunbonded web, a meltblown web, and a multilayer material of at least one layer of a meltblown web and at least one layer of a spunbonded web.

38. The method of Claim 37, wherein the nonwoven web comprises a polymer selected from the group consisting of polyolefins, polyesters, and polyamides.

39. The method of Claim 38, wherein the polymer comprises a polyolefin selected from the group consisting of one or more of polyethylene, polypropylene, polybutene, ethylene copolymers, propylene copolymers, and butene copolymers.